A LIST OF SHELLS COLLECTED IN WESTERN FLORIDA AND HORN ISLAND, MISSISSIPPI.

BY E. G. VANATTA.

During February and March, 1902, Mr. Clarence B. Moore collected the following species of shells while on an archæological expedition in western Florida. Most of the specimens were picked up on the shore. The numbers after the species correspond to the numbers of the localities, as follows:

1. Alligator Harbor, Franklin county, Florida.
2. St. George's Sound, Franklin county, Florida.
3. Indian Pass, Apalachicola Bay, Calhoun county, Florida.
4. St. Joseph's Bay, Calhoun county, Florida.
5. Crooked Island, off St. Andrew's Sound, Calhoun county, Florida.
6. St. Andrew's Bay, Washington county, Florida.

Those numbered 7 are a collection of shells from Horn Island, Mississippi, presented to the Academy some years ago. It is hoped that this list, which well covers the western coast of non-peninsular Florida, will be a useful appendix to Prof. W. H. Dall's Bulletin 37 of the U. S. National Museum. I wish to thank Prof. W. H. Dall, Mr. C. W. Johnson and Dr. H. A. Pilsbry for their assistance in identifying some of the species of this collection.

Class PELECYPODA.

Ostrea virginica Gmel. 2, 4, 5.
Anomia simplex Orb. 4, 5, 7.
Plicatula gibbosa Lam. 4, 5, 7,
Pecten gibbus irradians Lam. 1, 3, 4, 5, 6, 7.
Atrina rigida Dillw. 4.
Atrina serrata "Sol." Sowb. 4.
Mytilus exustus L. 5.
Modiolus tulipus L. 1, 4, 5.
Modiolus demissus Dillw. 4.
Arca ponderosa Say. 1, 3, 4, 5, 7.
Arca transversa Say. 3, 5, 7.
Arca incongrua Say. 1, 3, 4, 7.
Arca campechiensis Gmel. 1, 3, 4, 7.
Arca secticostata Reeve. 4, 5,
Glycimeris americana Defr. 3.
Leda acuta Conr. 3, 4, 5.
Cardita floridana Conr. 1, 5.
Cuna dalli Van. 3, 4, 5.
Crassinella lunulata Conr. 3, 4, 5.
Anisodonta elliptica Recl. 5.
Erycina floridana Van. 5.
Lucina chrysostoma Phil. 4, 5.
Phacoides trisulcatus Conr. 5.
Phacoides nassula Conr. 4, 5.
Phacoides floridanus Conr. 4, 5, 7.
Phacoides radians Conr. 4, 5, 7,
Phacoides crenella Dall. 3, 4, 5, 7.

Phacoides amiantus Dall. 4, 5, 7.
Divaricella quadrisulcata Orb. 5.
Diplodonta punctata Say. 5, 7.
Chama arcinella L. 4.
Cardium robustum Sol. 3, 4, 5, 6, 7.
Cardium isocardium L. 1, 4, 5.
Cardium muricatum L. 3, 4.
Cardium serratum L. 3, 4, 5, 7.
Cardium mortoni Conr. 6.
Venus mercenaria L. 1, 4.
Venus mercenaria mortoni Conr. 3, 5, 7.
Venus cribraria Conr. 4, 5, 7.
Venus cancellata L. 4, 5, 7.
Venus pygmæa Lam. 4, 5, 7.
Venus cuneimeris Conr. 4, 5.
Gemma gemma purpurea Lea. 4.
Parastarte triquetra Conr. 4, 5.
Meretrix simpsoni Dall. 4, 5.
Meretrix eucymata Dall. 7.
Meretrix conradiana Dall. 4, 5.
Meretrix texasiana Dall. 3.
Callista nimbosa Sol. 1, 4, 5, 6, 7.
Dosinia discus Rve. 1, 4, 5, 7.
Petricola pholadiformis Lam. 3, 4, 5.
Donax variabilis Say. 1, 3, 4, 5, 6, 7.
Donax obesa Orb. 3, 4, 5, 7.
Tagelus divisus Spengl. 3, 5.
Tellina magna Spengl. 5.
Tellina alternata Say. 1, 3, 7.
Tellina tenera Say. 3.
Tellina polita Say. 4.
Tellina consobrina Orb. 5, 7.
Tellina lintea Conr. 5, 7.
Tellina pauperata Orb. 4, 5.
Macoma constricta Broug. 3.
Macoma brevifrons Say. 7.
Macoma tenta Say. 5.
Tellidora cristata Recl. 5.
Strigilla flexuosa Say. 4, 5, 7.
Metis intastriata Say. 4.
Abra æqualis Say. 3, 4, 5, 7.
Ervilia concentrica Gld. 4, 5.
Semele bellastriata Conr. 4, 7.
Spisula solidissima similis Say. 1, 3, 4, 5, 7.
Mulinia lateralis Say. 3, 4, 5, 7.
Labiosa canaliculata Say. 1, 3, 7.
Panopea bitruncata Conr. 5.
Ensis directus Conr. 5.
Barnea costata Say. 3.

Class SCAPHOPODA.

Dentalium disparile Orb. 4, 5.

Class GASTROPODA.

Tornatina candei Orb. 4, 5.
Cylichnella bidentata Orb. 3.
Bullus occidentalis A. Ad. 5.
Melampus coffea gundlachi Pfr. 6.
Terebra dislocata Say. 4, 5.
Mangilia cerina K. and S. 4, 5.
Cancellaria reticulata L. 5.
Oliva literata Lam. 1, 3, 4, 5.
Olivella mutica Say. 4.
Olivella pusilla Marr. 4, 5.
Marginella apicina Menke. 5.
Fasciolaria tulipa Lam. 4, 5.
Fulgur pyrum Dillw. 4, 5.
Fulgur perversa L. 4, 5.
Melongena corona Gmel. 4.
Tritonidea cancellaria Conr. 7.
Nassa acuta Say. 4, 5.
Columbella avara Say. 5.

Columbella obesa Say. 4, 5.
Murex fulvescens Sowb. 3.
Purpura hæmastoma L. 7.
Pyramidella crenulata Holmes. 4, 5.
Turbonilla conradi Bush. 3, 4, 5.
Cassis inflata Shaw. 4, 5, 6.
Pyrula papyratia Say. 3, 4, 5.
Strombus pugilis L. 4, 5.
Strombus pugilis alatus Gmel. 4, 6.
Seïla adamsii H. C. Lea. 5.
Cœcum pulchellum Stimp. 5.
Cœcum cooperi Smith. 5.
Meioceras nitida Stimp. 5.
Litorina irrorata Say. 4, 6.
Rissoina browniana Orb. 5.
Crepidula fornicata L. 3, 4, 5, 6.
Crepidula plana Say. 4, 5.
Crepidula aculeata Gmel. 3.
Natica pusilla Say. 4, 5.
Polinices duplicatus Say. 1, 3, 4, 5, 7.
Sigaretus perspectivus Say. 1, 3, 4, 5.
Turbo castaneus crenulatus Gmel. 5, 6.
Teinostoma cryptospira Verr. 5.
Vitrinella mooreana Van. 5.

The following species are believed to be new:

Vitrinella mooreana n. sp. Fig. 1.

Shell umbilicate, discoidal, with about 4½ whorls. The first whorl is yellow and smooth, the remaining are white and sculptured with heavy spiral cords, of which there are 5 on the penultimate whorl and 7 on the body whorl above the periphery. The granulate interstices are about as wide as the spiral cords. The base is sculptured with very faint spiral striæ. The aperture is oblique and suborbicular, with the columella broadly thickened.

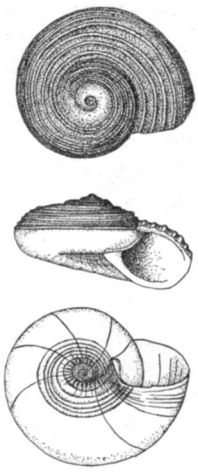

Fig. 1.

Alt. 1.2, diam. 2.75; aperture alt. 1, diam. 1 mm.

This species was collected by Mr. Clarence B. Moore on the gulf side of Crooked Island, off St. Andrew's Sound, Calhoun county, Florida. The types are No. 84,611, A. N. S. P. It is named in honor of its collector, Mr. Moore. The species seems to be near *V. multistriata* Verr., but differs in having 7 strong spiral cords above the periphery and a nearly smooth base. It differs from *V. striata* Orb. in having a thickened columella.

Erycina floridana n. sp. Fig. 2.

Shell small, white, thin, subquadrate, with the ends nearly evenly rounded, almost equilateral, beaks low, surface sculptured with irregular lines of growth. Hinge with a central pit and rather large lateral

teeth, four being in one valve and two in the other. The adductor scars are rather large, connected by an irregular pallial line.

Alt. 5, length 8.25, thickness of 1 valve 1.75 mm.

This species was collected by Mr. Clarence B. Moore on the gulf side of Crooked Island, Florida. The types are No. 83,876, A. N. S. P. Prof. W. H. Dall kindly compared it with his species from the Florida Pliocene. It is very near *E. kurtzii* Dall, but seems to be more delicate, with stronger laterals and more evenly rounded ends.

Fig. 2.

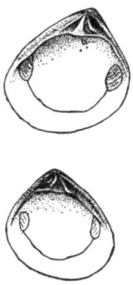

Fig. 3.

Cuna dalli n. sp. Fig. 3.

Shell subtriangular, inequilateral, purple in the center becoming lighter near the edge. surface sculptured with concentric costæ, ventral margin smooth, adductor muscle scars rather large, hinge strong and broad. The right valve has three cardinals, the anterior is long and low, the central large and triangular, the posterior short and narrow, situated at the edge of the large ligament pit. In the left valve the anterior cardinal is long and low, the curved central is smaller than the central of the opposite valve, the posterior cardinal is a small ridge at the edge of the ligament. Pallial line entire.

Alt. 2.5, length 2.4, thickness of one valve .8 mm.

The types of this species are No. 84,612, A. N. S. P. They were collected by Mr. Moore at Indian Pass, Apalachicola Bay, Florida; he also collected the same species at St. Joseph Bay and on the gulf side of Crooked Island, off St. Andrew's Sound, Florida.

This species is more rounded and inequilateral than *Parastarte triquetra* Conr., and lacks the crenulation on the ventral margin. It has a broader hinge than *Gemma gemma* Totten, but the surface sculpture is very similar. It is more inequilateral than *Cuna concentrica* Hedley, but the hinge is similar. *Cuna particula* Hedley is more rounded and truncate, with a slightly different hinge.